WORK SURFACE GUIDE FOR POWER TOOLS

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Field of the Invention

This document concerns an invention relating generally to devices for mounting and guiding power tools with respect to workpieces, and more specifically to an adapter which receives common hand-held power tools and allows them to be operated in a manner similar to larger "fixed bed" power tools (e.g., it allows a common hand-held circular saw to be adapted for use as a radial arm saw or sliding miter saw).

Background of the Invention

In fields such as construction and woodworking, users often make use of portable hand-held power tools (such as circular saws, jigsaws, routers, etc.), and/or larger "fixed-bed" power tools (such as table saws, radial arm saws, bandsaws, and table routers). While the hand-held power tools are popular for their portability and versatility (and additionally their low cost), the more cumbersome and expensive fixed-bed tools are often preferred for a more "professional" job, generally owing to their ability to very precisely position a workpiece with respect to the power tool head (e.g., the saw blade, router head, etc). However, fixed-bed tools must generally be used in a fixed location owing to their bulk and weight. It would be useful to have available some means for adapting common hand-held power tools so that they may be used in the same manner as their "fixed-bed" equivalents (for example, to allow a hand-held circular saw to be used as a radial arm saw or sliding miter saw).

Summary f the Invention

The invention involves a work surface guide for power tools which is intended to at least partially solve the aforementioned problems. To give the reader a basic understanding of some of the advantageous features of the invention, following is a brief summary of a preferred version of the work surface guide, which is illustrated in the accompanying drawings. As this is merely a summary, it should be understood that more details regarding the preferred versions may be found in the Detailed Description set forth elsewhere in this document. The claims set forth at the end of this document then define the various versions of the invention in which exclusive rights are secured.

Referring to **FIGS. 1** and **2**, a preferred version of the work surface guide **100** includes an elongated inner guide rail **102** and an elongated outer guide rail **104** aligned at least substantially parallel to the inner guide rail **102**. A power tool (e.g., the circular saw **12** shown in **FIG. 2**) may slide or otherwise ride on the inner and outer guide rails **102** and **104** so that its cutting head extends between the guide rails **102** and **104** into a cutting area **110** defined below and between the guide rails **102** and **104**. Opposing spaced frame members **106** support the guide rails **102** and **104** and extend downwardly to terminate in frame member attachment ends **108** which are adapted to affix to a mounting surface (e.g., to a table **10** as shown in **FIG. 2**) to support the guide rails **102** and **104** in a plane spaced above the plane of the mounting surface. This is preferably done by having each frame member attachment end **108** include a downwardly extending vertical leg **112**, and a horizontal leg **114** extending from the vertical leg **112** (and away from the from the inner and outer guide rails **102** and **104**), so that the vertical and horizontal legs **112** and **114** define a mounting mouth **116** which can receive a corner edge of a mounting surface **10** therein (e.g., with the horizontal leg **114** resting atop the mounting surface **10** and the vertical leg **114** abutting the side surface of the corner edge of the mounting surface **10**). The frame members **106** thereby support the guide rails **102** and **104** above the mounting surface **10** with the cutting area **110** located adjacent to the

corner edge of the mounting surface **10**. The frame members **106** include cutting tool end stops **120** extending above the frame members **106**, whereby a power tool **12** traveling on the guide rails **102** and **104** travels between the cutting tool end stops **120**. Additionally, at least one of the guide rails **102** and **104** preferably includes a cutting tool side stop **122** which extends above the guide rails **102** and **104**, whereby a power tool **12** traveling on the guide rails **102** and **104** travels adjacent the cutting tool side stop **122**, and may ride against the cutting tool side stop **122** to better ensure that the cutting head of the power tool **12** travels in a path parallel to the guide rails **102** and **104**.

An elongated board fence **124** (shown in **FIG. 1**, and also without the remainder of the work surface guide **100** in **FIG. 3**) is then pivotally affixed with respect to the inner guide rail **102** to swing between the frame members **106** in planes oriented at least substantially parallel to the inner and outer guide rails **102** and **104**, and situated below the inner and outer guide rails **102** and **104** and above the plane of the mounting surface **10**. The board fence **124** has opposing planar side surfaces **138** oriented at least substantially perpendicular to a plane defined by the guide rails **102** and **104**, whereby a board **14** situated on the mounting surface **10** may be placed against one of these side surfaces **138** to slide against the board fence **124** toward the corner edge of the mounting surface **10** to thereby enter the cutting area **110**. The board **14** may then be cut by the cutting head of a power tool **12** traveling on the guide rails **102** and **104**.

The board fence **124** includes an inner end **140** facing toward the cutting area **110** and an opposing outer end **142** facing away from the cutting area **110**, each of which is adapted to enhance the accurate cutting of boards of different lengths. The inner end **140** of the board fence **124** is adapted to slidably receive a sacrificial elongated cut guide fence member **144** therein, whereby the cut guide fence member **144** may be adjustably extended into the cutting area **110** from the inner end **140** of the board fence **124** (as can be seen from a comparison of **FIGS. 3** and **4**, wherein **FIG. 3** shows the cut guide fence member **144** in a retracted state and **FIG. 4** shows it in an extended state). As an

example, the inner end **140** of the board fence **124** may be formed of metal tubing sized to complementarily receive a cut guide fence member **144** formed of a length of standard 1 X 1 (3/4 inches by 3/4 inches) stock lumber. This allows the cut guide fence member **144** to swing with the board fence **124**, and to be extended as desired from the board fence **124** into the cutting area **110** so that when a power tool **12** rides across the guide rails **102** and **104**, the end of the cut guide fence member **144** opposite the inner end **140** of the board fence **124** will be cut off. Then, when a user subsequently runs a board **14** against the board fence **124** to situate it in the cutting area **110** for cutting, the user may determine where the cutting head will make the cut on the board **14** by looking to the cut end of the cut guide fence member **144**. The user can then align the board **14** against the board fence **124** (and cut guide fence member **144**) so that the cut will be made at the desired location on the board **14**.

The outer end **142** of the board fence **124** then includes an extension fence member **148** thereon, wherein the extension fence member **148** is adjustably extendable from the outer end **142** of the board fence **124** along the lengthwise axis of the board fence **124** (as can be seen from a comparison of **FIGS. 3** and **4**, wherein **FIG. 3** shows the extension fence member **148** in a retracted state and **FIG. 4** shows it in an extended state). The extension fence member **148** has a side surface **154** which is coplanar with the side surface **138** of the board fence **124** against which a board **14** slides during cutting, so that the extension fence member **148** serves as an extension of the board fence **124** which can be adjusted to a desired length with respect to the board fence **124** to better accommodate and guide boards **14** of different lengths.

The board fence **124** and its extension fence member **148** preferably also include a fence board stop **158** extending from the side surface **138** and/or **154** against which the board **14** slides during cutting, so that an end of a board **14** may be situated against the fence board stop **158** to deter it from displacing along its axis during cutting. The fence board stop **158** is relocatable along the lengthwise axis of the board fence **124** and its

extension fence member **148** to accommodate boards **14** of different lengths (as can be seen from a comparison of **FIGS. 3** and **4**, which show the fence board stop **158** in different locations), and is preferably also removable from the board fence **124** to accommodate very long boards **14** (i.e., those which are longer than the maximum length of the board fence **124** and its extension fence member **148**).

The work surface guide **100** then preferably also includes an elongated board end stop **170** which is situated adjacent the cutting area **110** in planes oriented between an upper plane defined by the guide rails **102** and **104** and a lower plane defined by the horizontal legs **114** of the frame members **106**, with the board end stop **170** extending in a direction oriented between the frame members **106** and at least substantially parallel to the outer guide rail **104**. A board **14** to be cut may therefore be slid against the board fence **124** into the cutting area **110** until the end of the board **14** to be cut off abuts the board end stop **170**. The board end stop **170** preferably has adjustable spacing with respect to the outer guide rail **104** to accommodate different lengths of boards **14**, and is preferably also entirely removable from the work surface guide **100** in case it is not desired (e.g., in the event very long boards **14** are to be cut).

Further advantages, features, and objects of the invention will be apparent from the following detailed description of the invention in conjunction with the associated drawings.

Brief Description of the Drawings

FIG. 1 is a perspective view of a power tool work surface guide **100** which exemplifies the invention.

FIG. 2 is a perspective view of the power tool work surface guide **100** of **FIG. 1** shown mounted on a corner edge of a table or other mounting surface **10**, with a circular saw **12** situated on the guide rails **102** and **104** of the power tool work surface

guide **100** to be pushed towards an end of a board **14** to be cut (this board **14** resting against the board fence **124** of the work surface guide **100**).

FIGS. 3 and **4** are perspective views of the board fence **124** of the power tool work surface guide **100** of **FIGS. 1** and **2**, shown without the remaining structure of the work surface guide **100**, and with the cut guide fence member **144**, extension fence member **148**, and fence board stop **158** shown extended in **FIG. 4** from their positions shown in **FIG. 3**.

Detailed Description of Preferred Versions of the Invention

The reader is directed to **FIGS. 1** and **2** of the accompanying drawings, wherein a power tool work surface guide exemplifying the invention is generally designated by the reference numeral **100**. The work surface guide **100** includes an elongated inner guide rail **102** and an elongated outer guide rail **104**, with the guide rails **102** and **104** being oriented parallel to each other and extending between opposing frame members **106**. The frame members **106** are designed to support the guide rails **102** and **104** adjacent to and above a mounting surface such as a workbench or table (generally depicted in **FIG. 2** by the reference numeral **10**), with the frame members **106** extending downwardly and laterally from the guide rails **102** and **104** to terminate in frame member attachment ends **108**. As illustrated in **FIG. 2**, this allows a power tool such as a circular saw (depicted in **FIG. 2** at **12**) to rest on the guide rails **102** and **104** with its cutting head (not shown) extending to a cutting area **110** located below and between the guide rails **102** and **104**, and adjacent to the edge of the table **10** to which the work surface guide **100** is attached. Thus, by placing a board (such as board **14** in **FIG. 2**) on the table **10** and extending an end of the board **14** into the cutting area **110**, and then driving the circular saw **12** on the guide rails **102** and **104** between the frame members **106**, a user may cut the board **14** to some desired length. Note that the guide rails **102** and **104** are shown in the Figures with somewhat greater spacing than might actually be used in practice, so that

the cutting area **110** is more clearly visible in the drawings; in general, a spacing between the guide rails **102/104** of 2-4 inches is generally sufficient to accommodate most power tools.

The frame member attachment ends **108** can take a variety of forms, such as some form of jawed mounting arrangement which allows the frame member attachment ends **108** to be readily and removably affixed to the edge of the table **10** (e.g., the frame member attachment ends **108** may be provided in the form of a common C-clamp, a screw-adjusted or spring-loaded jaw, etc.). However, a simple and particularly preferred arrangement is to form the frame member attachment ends **108** with a downwardly extending vertical leg **112**, and a horizontal leg **114** extending laterally away from the vertical leg **112** and the guide rails **102** and **104**, thereby defining a mounting mouth **116** between the legs **112** and **114**. Each of the legs **112** and **114** may then bear at least one leg fastener aperture **118**, such that when the edge of the table **10** is situated in the mounting mouth **116** with the vertical and horizontal legs **112** and **114** placed in abutment with the top and side surfaces of the table **10** (as depicted in **FIG. 2**), fasteners may be inserted into the leg fastener apertures **118** to firmly mount the frame member attachment ends **108** (and thus the frame members **106** and guide rails **102** and **104**) to the table **10**. To allow the frame member attachment ends **108** to better affix to tables **10** having different configurations, it should be understood that multiple leg fastener apertures **118** situated at different locations on the vertical and horizontal legs **112** and **114** may be provided. Additionally, not all of such leg fastener apertures **118** need bear a fastener which extends into the adjacent table **10**; instead, some could bear blunt threaded members which can be threaded into the vertical and horizontal legs **112** and **114** by some desired degree, to extend outwardly therefrom to abut the table **10**, and thereby serve as screws for leveling or otherwise finely adjusting the inclination of the work surface guide **100** with respect to the table **10**.

While the foregoing configuration of the frame member attachment ends **108** does not allow for significant versatility (in that once the vertical and horizontal legs **112** and **114** are affixed to a table **10**, the cutting area **110** is located at the same height above the top of the table **10** and the same location laterally spaced from the edge of the table **10**), the height and location of the cutting area **110** can be adjusted by interposing one or more spacer blocks having a desired thickness between the vertical and/or horizontal legs **112** and **114** and the table **10** prior to affixing the legs **112** and **114** to the table **10**. If desired, the vertical and horizontal legs **112** and **114** might be provided with an elastomeric or other non-slip surface to better avoid slipping with respect to the mounting surface **10** (and/or any spacer blocks situated between the legs **112** and **114** and the table **10**), and to provide some degree of vibration dampening.

Stops are preferably provided on the guide rails **102/104** and/or the frame members **106** so that a circular saw or other power tool (shown in **FIG. 2** at **12**) may be driven along the lengths of the guide rails **102** and **104** without laterally shifting between the rails **102/104**, and to help prevent the cutting head of the power tool **12** from inadvertently being driven into the guide rails **102/104** or frame members **106**. Initially, cutting tool end stops **120** on the frame members **106** may interfere with the power tool **12** if a user attempts to move it past the frame members **106**, so that a power tool **12** traveling on the guide rails **102/104** is effectively limited to travel between the end stops **120**. Further, it is also useful to have at least one of the guide rails **102/104** include a cutting tool side stop **122** which extends above the guide rails **102/104**, and against which a power tool **12** may slide as it travels on the guide rails **102/104**, thereby better ensuring that a straight cut (one parallel to the rails **102/104**) is made, and so that the head of the power tool **12** is not inadvertently driven into the guide rails **102/104**.

To assist the user in affixing a board or other workpiece in a desired position in the cutting area **110** when a cut is made (with an exemplary board being depicted at **14** in **FIG. 2**), the work surface guide **100** preferably includes an elongated board fence **124**

(see particularly **FIG. 1**, and also the detailed depictions of the board fence **124** alone in **FIGS. 3** and **4**). The board **14** may be slid against the board fence **124** to direct it into the cutting area **110** and into the path of the cutting head of the power tool **12** within the cutting area **110**. The board fence **124** is preferably pivotally affixed to the inner guide rail **102** at a fence pivot **126** (here taking the form of a threaded rod **128** extending from the board fence **124**, through the inner guide rail **102**, and then having a wing nut **130** threaded onto the rod **128** for easy tightening capability). The board fence **124** may therefore swing between the frame members **106** in a plane oriented parallel to the inner and outer guide rails **102** and **104**, and above the mounting surface **10** (i.e., in the horizontal plane of the cutting area **110**). To better enable the user to determine the angle of a board **14** with respect to the path of the cutting head, an arcuate track **132** is preferably provided as an extension from the inner guide rail **102**, and a portion of the board fence **124** spaced away from the fence pivot **126** rides within the arcuate track **132**. As best seen in **FIGS. 1** and **3-4**, the portion of the board fence **124** riding within the arcuate track **132** is here another threaded rod **134**, which may have a wing nut **136** provided thereon to allow the board fence **124** to be locked into a desired angular position in relation to the inner guide rail **102**. The arcuate track **132** preferably bears angle markings thereon so that the user may readily tell at what angle the board fence **124** is oriented in relation to the inner guide rail **102**.

Now referring particularly to **FIG. 3** for a more detailed depiction of the board fence **124**, the board fence **124** may be formed of a metal or plastic tube having a generally square or rectangular cross-section, so that the board fence **124** has a planar side surface **138** against which a board **14** may slide as it is driven into the cutting area **110**. The board fence **124** has an inner end **140** which faces towards the cutting area **110**, and an opposing outer end **142** which faces away from the cutting area **110**. Each of these ends **140** and **142** is provided with one or more extensions which enhance the utility of the board fence **124**, as will be discussed at greater length below.

Initially, the inner board fence end **140** is adapted to slidably receive a sacrificial elongated cut guide fence member **144** therein, thereby allowing the cut guide fence member **144** to be adjustably extended into the cutting area **110** from the board fence inner end **140** (or entirely retracted within the inner board fence end **140**, if desired). Where the board fence **124** is defined as a tubular member having an open inner end **140**, this open inner end **140** is preferably sized and configured such that it can telescopically receive a length of some commonly-sized stock lumber (or some other common, relatively inexpensive, and easily cuttable material) to serve as the cut guide fence member **144**. For example, the board fence **124** might be sized to telescopically receive a length of 1 X 1 lumber, 1 X 2 lumber, or 2 X 4 lumber therein. When the cut guide fence member **144** is received within the board fence **124**, it will swing with the board fence **124** within the cutting area **110**, and will effectively extend the board fence **124** into the cutting area **110**. During cutting, the end of the cut guide fence member **144** may be cut off, and its cut end will serve to indicate to the user where any subsequent cuts will be made on a board **14** resting against the board fence **124**. Thus, when a user wants a board **14** cut at a specific location, the user can simply situate the board **14** against the side surface **138** of the board fence **124** so that the desired cutting location is aligned with the cut end of the cut guide fence member **144**, and the user may then drive the power tool **12** across the guide rails **102** and **104** to cut the board **14** at the desired location. When the user wishes to realign to board fence **124** to a different angle (such that the cut end of the cut guide fence member **144** will no longer accurately indicate the path of travel of the cutting head), the user may simply pull an additional length of the cut guide fence member **144** from the board fence **124** so that the end of the cut guide fence member **144** may again be cut off to indicate the location of subsequent cuts. Some means for releasibly locking the cut guide fence member **144** with respect to the board fence **124** is preferably provided, and as best seen in **FIGS. 3** and **4**, this may take the form of a thumbwheel **146** which has a threaded member (not shown) extending

therefrom through the wall of the board fence **124** to engage the cut guide fence member **144**. Thus, the thumbwheel **146** may be actuated to releasibly engage the cut guide fence member **144** within the board fence **124** once it is extended from the board fence **124** by some desired length.

At the board fence outer end **142**, an extension fence member **148** is adjustably extendible from the outer end **142**, as can be seen by comparing **FIG. 3** (wherein the extension fence member **148** is retracted in the board fence **124**) and **FIG. 4** (wherein the extension fence member **148** is extended from the board fence **124**). Such an arrangement may be provided by forming the extension fence member **148** of an inner telescoping section **150** (see **FIG. 4**) sized to be slidably received within the board fence **124**, and an outer surface member **152** sized to fit over the inner telescoping section **150**. The outer surface member **152** of the extension fence member **148** is preferably sized to have an extension fence member side surface **154** which is coplanar with the board fence side surface **138**, so that any board **14** sliding along the board fence side surface **138** and extension fence member side surface **154** will smoothly slide in a straight path towards the cutting area **110**. As with the cut guide fence member **144**, a thumbwheel **156** may be provided to extend through the board fence **124** and engage the extension fence member **148** at its inner telescoping section **150** to allow the extension fence member **148** to be fixed at some desired degree of extension from the board fence **124**. The user may therefore extend the extension fence member **148** with respect to the board fence **124** to some desired length to accommodate a longer board **14** to be cut, and may affix the extension fence member **148** in place for that or subsequent boards (or may retract the extension fence member **148** when desired).

Since it can sometimes be useful to restrain an end of the board **14** prior to beginning cutting operations, the board fence **124** preferably includes a fence board stop **158** which extends from the board fence side surface **138**, thereby deterring any board **14** resting against the board fence side surface **138** from displacing along the length of the

board fence **124** during cutting. The fence board stop **158** is preferably relocatable along the length of the board fence **124** (and its extension fence member **148**) to better accommodate boards **14** of different lengths (with **FIGS. 3** and **4** showing the fence board stop **158** in different locations). In **FIGS. 3** and **4**, the fence board stop **158** is depicted as a strip-like metal fence board stop body **160** which is slidably received in the extension fence outer surface member **152** and the board fence **124** adjacent the extension fence inner telescoping section **150**, and a protruding fence board stop heel **162** joined to the body **160** at a converging neck **164**. A slot **166** is then formed in the board fence **124** and the extension fence outer surface member **152** which allows the fence board stop body **160** to be slid to different locations along the board fence **124** and extension fence member **148**, while still allowing the fence board stop heel **162** to protrude directly from the extension fence member side surface **154** (or board fence side surface **138**). A thumbwheel **168** extends through the outer surface member **152** and inner telescoping section **150** of the extension fence member **148** to releasably engage the body **160** of the fence board stop **158**, thereby allowing a user to affix the fence board stop heel **162** at different desired locations. Alternatively and/or additionally, the fence board stop **158** may be locked into a desired location by simply tightening the extension fence member thumbwheel **156** to push the inner telescoping section **150** of the extension fence member **148** against the fence board stop body **160** within the board fence **124** to such a degree that the fence board stop **158** may no longer slide. It is useful to include a stop in the slot **166**, or otherwise on the inner board fence end **140** or its surroundings, so that the fence board stop body **160** cannot be pushed past the inner board fence end **140** into the path of the power tool **12**. If a user is to cut very long boards **14** (in which case the fence board stop heel **162** may interfere with the length of the board **14** resting along the side surfaces **138** and **154** of the board fence **124**, a user may simply slide the entire length of the fence board stop **158** out of the board fence **124** for later replacement and use when shorter boards **14** are to be cut. Alternatively, when the fence board stop **158** is not in

use, it may be removed from the board fence **124**, rotated 180° about the axis of its body **160**, and then reinserted into the board fence **124** (so that the heel **162** rests flush against the end of the extension fence member **148**) for easy storage.

Similarly to the fence board stop **158** on the board fence **124**, it can sometimes be useful to provide a stop for the opposing end of the board **14** (the one opposite the end resting against the board fence **124**). Thus, the work surface guide **100** preferably also includes a board end stop **170** which is generally situated in the planes of the cutting area **110** opposite the mounting surface **10** (i.e., in planes situated between an upper plane defined by the guide rails **102** and **104** and a lower plane defined by the mounting surface **10**), with the board end stop **170** extending in a direction oriented between the frame members **106** and at least substantially parallel to the outer guide rail **104**. In **FIG. 1**, the board end stop **170** is depicted as having end stop slides **172** slidably received within end stop collars **174** provided on the frame members **106**. The end stop collars **174** include thumbwheels **176** having threaded members (not shown) protruding through the end stop collars **174** onto the end stop slides **172**, whereby a user may adjust the thumbwheels **176** to lock the slides **172** at some desired degree of extension within the end stop collars **174**. The end stop slides **172** are joined by a stop member **178**, which may (if desired) have an enlarged blocking plate **180** defined thereon to better serve as a stop for a board **14** extending from the board fence **124**, through the cutting area **110**, and onto the stop member **178**.

Thus, referring particularly to **FIG. 2**, it is seen that a user may affix the work surface guide **100** to a mounting surface **10** at its frame member attachment ends **108**; situate a desired power tool **12** on the guide rails **102/104** to ride thereon between the frame members **106**; and move the power tool **12** between the frame members **106** and through the cutting area **110** to cut the end of the cut guide fence member **144**. Once the cut guide fence member **144** is cut at the cutting head of the power tool **12**, it will indicate to a user the exact location where the power tool **12** will make its next cut

(provided the next cut is made under the same conditions as the first). The user may then situate a board **14** against the side surface **138** (shown in **FIG. 1**) of the board fence **124** so that one end of the board **14** is aligned with the cut end of the cut guide fence member **144** (i.e., along the path of travel of the cutting head of the power tool **12**), and may then abut the heel **162** of the fence board stop **158** (also shown in **FIG. 1**) against the opposite end of the board **14** to better restrain it in place during cutting. After the board **14** is cut, it may be removed, and an uncut board **14** may be put in its place against the side surface **138** of the board fence **124**, and against the heel **162** of the fence board stop **158**, if the second board **14** is to be cut with the same length and configuration as the first board **14**. The user is thereby able to rapidly and easily make repeated identical saw cuts of boards **14** or other pieces to desired lengths. Since the work surface guide **100** is easily removable from the mounting surface **10**, it can be used in different locations to which the transport of a fixed-bed cutting tool would be impractical.

Note that a preferred version of the invention is shown and described above to illustrate different possible features of the invention and the varying ways in which these features may be combined. Apart from combining the different features of the foregoing versions in varying ways, other modifications are also considered to be within the scope of the invention. Following is an exemplary list of such modifications.

Initially, the work surface guide **100** may take a wide variety of forms other than the one illustrated. While the guide rails **102/104** are shown as being integrally formed with the frame members **106**, the cutting tool end stops **120**, the cutting tool side stop **122**, etc. (a form which might be useful where these pieces are to be integrally molded, e.g., from thermosetting plastics), it should be understood that these parts could instead be separately formed of metals, plastics, wood, or other materials, and then affixed together by fasteners, welding, or other attachment means. In this respect, the rails **102/104** might be made affixable to the frame members **106** at various locations along their length (e.g., by extending bolts through the rails **102/104** and into the frame

members **106**) so that the frame members **106** might be more closely spaced together when the work surface guide **100** is to be mounted to a smaller mounting surface **10**.

Similarly, the various components of the work surface guide **100** need not have the same configuration and relative sizes as the ones illustrated in the Figures; for example, the board end stop **170** might simply have a single end stop slide **172** (e.g., the one illustrated at the right side of **FIGS. 1** and **2**), with the stop member **178** extending therefrom to terminate in the blocking plate **180**, and with the remainder of the stop member **178** being eliminated. In similar fashion, various components may be replaced by different components having the same functions; for example, the sliding and locking arrangements provided between the board fence **124** and its cut guide fence member **144**, extension fence member **148**, and fence board stop **158** may take a wide variety of forms other than the ones illustrated, and members might slide adjacent each other rather than in telescopic relation to each other, with the members being restrained to adjacently slide by the use of brackets, sliding interlocking structure (e.g., dovetail tongue-and-groove arrangements), or other arrangements.

The work surface guide **100** is not limited to the use of power tools **12** in the form of circular saws, and other power tools (jigsaws, routers, etc.) can be accommodated. Additionally, such power tools **12** need not travel directly on the guide rails **102** and **104**, and might instead ride on a carriage which bears rollers or which is otherwise slidably provided atop the rails **102/104**. If desired, such a carriage might be slidably affixed to the guide rails **102/104**, so that it is not easily removed therefrom. If desired, the guide rails **102/104** might contain channels for carriage rollers to ride in.

Additional features can be added to the work surface guide **100**. A support member (rigid beam, rod, or other member) could be added to extend from one vertical leg **112** to the other, and/or from one horizontal leg **114** to the other, to add rigidity to the work surface guide **100**.

The outer guide rail **104** could bear a fence or plate which swings downwardly to protect a user from the blade of the power tool **12** after a cut has been made.

A work light could be added to some portion of the work surface guide **100**, and it could extend from a flexible stem to allow the light to be reoriented to an area of interest to better view cutting operations. An electrical socket could be added to the work surface guide **100** so that the power tool **12** may be conveniently plugged into to the work surface guide **100** (with the socket being powered by an extension cord running from the work surface guide **100**). The work surface guide **100** could also bear small hooks, eyelets, or clips to which the cord of the power tool **12** might be held, so that the cord is kept readily at hand and/or may be more easily maintained out of the user's way during cutting operations.

The invention is not intended to be limited to the preferred versions of the invention described above, but rather is intended to be limited only by the claims set out below. Thus, the invention encompasses all different versions that fall literally or equivalently within the scope of these claims.